

REMARKS

Reconsideration of the above-identified application is respectfully requested. Claims 2-9 and 11-31 are now pending in this application. Claims 2, 8, 11, 15, 16, 18 and 20 have been amended and Claims 22-31 have been added by way of this Amendment and Response. In an Office Action dated October 10, 2002 (hereinafter "Office Action"), Claims 8 and 11-14 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 2-4, 6-8, 15, 16, 18 and 20 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,779,601 issued to Ish III (hereinafter "Ish"). Claims 2-4, 6-9, and 11-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,643,152 issued to Simonson (hereinafter "Simonson"). Claims 2-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Simonson in view of U.S. Patent No. 5,236,406 issued to Webber (hereinafter "Webber"). Applicants respectfully submit that all of the claims pending in the present application are neither anticipated nor obvious in view of the cited references for at least the reasons following.

The reasons why applicants disagree with the rejections set forth in the Office Action and believe that the claims of the present application are allowable are discussed below, following a brief description of the invention and a brief description of two of the cited and applied references. The discussion of applicants' invention and the two cited and applied references are not provided to define the scope or interpretation of any of the claims of this application. Instead, these discussions are provided to help the U.S. Patent and Trademark Office (hereinafter "the Office") better appreciate important claim distinctions discussed thereafter.

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I. Applicants' Invention

The present invention is directed toward an improved press arm adapted to permit an operator to perform either a traditional straight press exercise or a butterfly exercise. The press arm has three principal components. A main arm member is pivotally coupled to the frame of the exercise machine at a main pivot. A pair of secondary arms are pivotally coupled to the main arm member at a pair of secondary pivots. The axes of the secondary pivots are orthogonal to the axis of the main pivot and are inclined with respect to vertical when the press arm is in a rest position. This inclination causes the distal ends of the secondary arms to assume a natural rest position under the influence of gravity. The rest positions of the secondary arms is at a comfortable starting position for performance of a press exercise. The secondary arms may be pivoted inwardly and outwardly from this rest position. A resistance source is coupled to the main arm member to resist movement of the main arm member.

Referring to attached FIGURES 1 and 3, in one aspect of operation of an embodiment of the present invention¹, inward movement of the distal ends 108 of the secondary arms 30 is resisted by a resistance source 16 coupled to the main arm member 24. Moreover, an incremental inward movement of the distal ends 108 of the secondary arms 30 causes a corresponding incremental forward movement 112 of a transverse cross member 26 coupled to a distal end of the main arm member 24. Movement of the main arm member 24 causes a corresponding movement of the resistance source 16 coupled to the main arm member 24 (assuming that the operator does not relax the forward pressure on the secondary arms and maintains the longitudinal position of the hand grips 44 or 46.)

¹ It is to be understood that the present invention may be carried out in embodiments in addition to that discussed herein.

More specifically, the exercise apparatus 10 has a longitudinal axis 100 which may be defined as an axis oriented perpendicular to the secondary pivot axes 110 and perpendicular to the pivot axis of the main pivot 22. When the distal ends 108 of the secondary arms 30 are moved laterally inward toward one another, in the direction of the arrows indicated by reference numerals 102 and 104, while maintaining a longitudinal position of each distal end 108 relative to the longitudinal axis 100, the main arm member 24 is caused to pivot about the main pivot 22. When the main arm member 24 is pivoted about the main pivot 22, a resistance force is felt by the user generated by the resistance source 16 coupled to the main arm member 24. Thus, an exercise apparatus 10 formed in accordance with one embodiment of the present invention provides secondary arms having distal ends which may move laterally inward and perpendicularly to a longitudinal axis. Further still, resistance is provided to such lateral inward movement.

II. U.S. Patent No. 5,779,601 Issued to Ish

Referring to attached FIGURE 12, Ish is directed toward a multi-station exercise machine having a press station. The press station includes a pair of press arms 124 pivotally mounted at respective pivots 126 to the main arm member 25 for left and right swinging movement along the paths indicated by reference numerals 128 and 130. During press exercises, the exercising person pushes up on the arms 124, but can also move the arms out or in while pushing up on the arms 124.

The press station has a longitudinal axis 100 which may be defined as an axis oriented perpendicular to the axes of the secondary pivots 126 and perpendicular to the pivot axis of the main pivot 26. When the distal ends 108 of the secondary arms 124 are rotated inward toward one another, they are restricted to arcuate paths 128 and 130 defined by the rotation of the distal ends 108 about the secondary pivots 126. Moreover, the distal ends of the secondary arms 124

can not be moved laterally inward while maintaining a longitudinal position of each distal end 108 relative to the longitudinal axis 100 as taught and claimed by applicants. Further, no resistance is provided to the inward movement of the distal ends 108 since the main arm member 25 is not pivoted due to the inward movement of the distal ends 108.

III. U.S. Patent No. 5,643,152 issued to Simonson

Referring to FIGURE 1 of Simonson, Simonson provides an apparatus 1 for performing a chest press exercise. The apparatus 1 includes a pair of secondary arms 60 coupled to a frame 10 through a main pivot 30 and a pair of secondary hinges 32 and 34. The secondary hinge angle A (see FIGURES. 1A, 1B and 1C) establishes the relationship of the lateral component to the longitudinal component. When the secondary hinge angle is 90°, as shown in FIG. 1B, there is no lateral component. Rather, all the resistance is attributed to the longitudinal component. Consequently, the user can move the handles 61 laterally without moving the weight stack 23 at all. Furthermore, the user can move one hand in the lateral direction without moving the other, and perceive no difference between the resistance applied to the left and right arms 60. Pushing the handles 61 longitudinally, however, lifts the weight stack. Such a system may be desirable to allow the user to select independent, comfortable hand positions while performing a traditional (i.e., longitudinal resistance only) chest press exercise. See Col. 7, lines 31-46.

Simonson, like Ish, teaches secondary arms 60 that when the distal ends of the secondary arms 60 are rotated inward toward one another, they are restricted to arcuate paths defined by the rotation of the distal ends about the secondary hinges 32 and 34. Moreover, the distal ends of the secondary arms 60 can not be moved laterally inward while maintaining a longitudinal position of each distal end relative to a longitudinal axis as taught and claimed by applicants. Further, no resistance is provided to the inward movement of the distal ends since the main arm member is not pivoted due to the inward movement of the distal ends.

Further, Simonson teaches an exercise apparatus where a pair of secondary arms are pivotal only inward from an at rest position, and not inwardly *and* outwardly from an at rest position as taught and claimed by applicants. More specifically, the arms are physically restrained from movement outward from the rest position by bracket 37 and its attached bumpers 37. "In the rest position, the bracket 37 operates to limit the lateral range of motion of the handles 61 and to define a lateral starting position." *See* Col. 8, lines 64-66. Thus, the arms are physically restrained from pivoting outwardly from an at rest position.

IV. Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 8 and 11-14 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In view of the foregoing claim amendments, applicants respectfully submit that the rejections under 35 U.S.C. § 112, second paragraph, have been overcome.

V. Claim Rejections Under 35 U.S.C. § 102(e)

1. Rejection of Claims 2-4, 6-8, 15, 16, 18 and 20 Under Ish

Independent Claims 2, 11, 15, 18, and 20, as well as certain dependent claims stemming therefrom, stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ish. Independent Claims 2, 11, 18, and 20 now recite that the exercise apparatus includes "a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot" or substantially identical claim language. Independent Claim 15 recites the same features, but is directed at one or more secondary arms.

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The inventions of Claims 2, 11, 15, 18, and 20 are simply not taught or suggested by Ish. In contrast and as discussed in more detail above, Ish teaches an exercise machine having secondary arms wherein movement of the distal ends inward toward one another are restricted to an arcuate path such that the distal ends of the arms can not move inward toward one another as to maintain a longitudinal position of each distal end. Further still, Ish fails to teach having such motion cause a corresponding movement of the main arm member.

Ish therefore fails to teach each and every element as set forth in independent Claims 2, 11, 15, 18 and 20. Accordingly, applicants respectfully request the pending rejection of Claims 2, 11, 15, 18, and 20 under 35 U.S.C. § 102(e) be withdrawn. Claims 3-9, 6-8, and 16 depend on either independent Claim 2 or 15. Therefore, for at least the reasons stated above for Claims 2 and 15, dependent Claims 3-9, 6-8, and 16 are also allowable.

2. Rejection of Claims 2-4, 6-9, and 11-21 Under Simonson

Independent Claims 2, 11, 15, 18, and 20, as well as certain dependent claims stemming therefrom, were rejected under 35 U.S.C. § 102(e) as being anticipated by Simonson. Independent Claims 2, 11, 18, and 20 now recite that the exercise apparatus includes "a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot" or substantially identical claim language. Independent Claim 15 recites the same limitation, but is directed at one or more secondary arms.

In contrast, and as discussed in more detail above, Simonson teaches an exercise apparatus, that when a primary hinge is disposed at 90° with respect to a pair of secondary hinges, movement of the distal ends of a pair of secondary arms inward toward one another

would simply result in the distal ends following an arcuate path inward toward one another such that the distal ends of the arms can not move inward toward one another and simultaneously maintain a longitudinal position of each distal end. Further still, Simonson fails to teach having such motion of the arm distal ends cause a corresponding movement of the main arm member. In the words of Simonson, when "the secondary angle is 90°, as shown in FIG. 1B, there is no lateral component. Rather, all the resistance is attributed to the longitudinal component. Consequently, the user can move the handles 61 laterally without lifting the weight stack 23 at all." *See* Col. 7, lines 33-42.

Further, independent Claims 2, 11, 18, and 20 recite that "each of the secondary arms pivot both inwardly and outwardly from an at rest position." Independent Claim 15 recites the same limitation, but is directed at one or more secondary arms. These elements are also not taught or suggested by Simonson. In contrast, Simonson teaches an exercise apparatus where a pair of secondary arms are pivotal only inward from an at rest position, and not inwardly *and* outwardly from an at rest position as taught and claimed by applicants. More specifically, the arms are physically restrained from movement outward from the rest position by bracket 37 and its attached bumpers 37. "In the rest position, the bracket 37 operates to limit the lateral range of motion of the handles 61 and to define a lateral starting position." *See* Col. 8, lines 64-66. Thus, the arms are physically restrained from pivoting outwardly from an at rest position.

Since the secondary arms of Simonson are restrained from moving outward of the rest position, Simonson does not teach or suggest "secondary arms pivot[al] both inwardly and outwardly from an at rest position" as claimed by applicants. Further, as described above, Simonson fails to teach an exercise apparatus that includes "a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another

while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot" as claimed by applicants.

Therefore, Simonson fails to teach each and every element as set for in amended Claims 2, 11, 15, 18, and 20. Accordingly, applicants respectfully request the pending rejection of Claims 2, 11, 15, 18 and 20 under 35 U.S.C. § 102(e) be withdrawn. Claims 3, 4, 6-9, 12-14, 16, 17, 19, and 21 depend on either independent Claim 2, 11, 15, 18 or 20. Therefore, for at least the reasons argued above for independent Claims 2, 11, 15, 18, and 20, dependent Claims 3, 4, 6-9, 12-14, 16, 17, 19, and 21 are also allowable.

VI. Claim Rejections Under 35 U.S.C. § 103(a) Under Simonson in View of Weber

Independent Claim 2, as well as Claims 3-9 stemming therefrom, stand rejected under 35 U.S.C. § 103(a) as being obvious over Simonson in view of Weber. Independent Claim 2 now recites an exercise apparatus having "a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot." Claim 2 also recites the "secondary arms pivot both inwardly and outwardly from an at rest position." These elements are simply not taught or suggested by Simonson, as discussed above, nor Weber, since Weber fails to even teach or suggest the use of secondary arms, and therefore fails to teach or suggest at least the above elements.

Under 35 U.S.C. § 103(a), a *prima facie* case of obviousness is established only if the cited references teach or suggest each of the elements of a recited claim. *In re Bell*, 991 F.2d 781 (Fed. Cir. 1993). Because Simonson and Weber, alone or in combination, fail to teach or suggest each of the elements of Claim 2, applicants respectfully submit that a *prima facie* case of

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obviousness has not been established. Therefore, applicants request the withdrawal of the pending rejection under 35 U.S.C. § 103(a) with regard to Claim 2. Accordingly, applicants respectfully request that the Examiner also withdraw the pending rejections to Claims 3-9, which depend from allowable Claim 2.

VII. New Claims 22-31

New Claims 22-31 have been added to further point out and distinctly claim the novel aspects of the embodiments of the present invention. Applicants submit that the prior art, alone or in combination, does not teach or suggest the present invention as recited in Claims 22-31 for reasons in addition to the reasons argued above for the independent claims. For example, none of the cited and applied references teach: "secondary arms pivot[al] both inwardly and outwardly along [an] arcuate path to at least a butterfly exercise start position and to a straight press exercise start position."

For instance, Ish teaches an exercise machine having secondary arms limited to press exercises and thus a press exercise start position, and does not teach secondary arms that are pivotal to a butterfly exercise start position *and* to a straight press exercise start position, as taught and claimed by applicants.

More specifically, the inability of the press station to perform butterfly exercises is evident by the presence of an entire separate butterfly station 14 (*see* Figure 1 of the exercise machine of Ish), necessitated by the inability of the press station to perform butterfly exercises. Further, it is clear from examination of the specification of Ish that the secondary arms of Figure 12 are not taught or suggested as being pivotal into a butterfly exercise start position. Moreover, Ish describes that the secondary arms are for use in press exercises, not butterfly exercises, and that the arms are for resisting a push motion, not a butterfly motion. *See* Col. 7, lines 11-18. Further, there is no motivation or suggestion to perform a butterfly exercise with the

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arms or to pivot the arms in a butterfly exercise start position since no lateral resistance to the movement of the handles would be provided by the exercise machine of Ish.

Focusing on Simonson, this patent teaches an exercise apparatus that is suitable for performing chest press exercises only. Simonson is replete with references to the apparatus as a chest press exerciser. See for example, the title of the application: "Chest Press Exercise Machine And Method of Exercising;" the first line of the Abstract: "An apparatus and a method for performing a chest press exercise;" or at Col. 8, lines 7 and 8: "such as the chest press exercise of the present exercise machine." As further evidence, Simonson does not mention the term "fly," "butterfly," or "dumbbell fly" in the specification.

Simonson states a "user may choose to emulate a traditional bench press exercise by grasping the handles 61 in *the rest position* (a wide hand width) and pressing directly forward while maintaining his hands at a constant width." ... "Alternately, the user may choose a chest exercise with an inward lateral component of motion. In this exercise, the user begins the exercise stroke with the handles at *the rest position* and follows a "C" shape, pressing forward at the beginning of the stroke and bringing the handles together in an arcuate path at the end of the stroke." [Emphasis added] See Col. 11, lines 27-42. Thus, Simonson teaches the performance of a straight press, or a press having various lateral movement variations, both of which start from the same *rest position*. Since the exercises of Simonson start at the same rest position, Simonson does not teach or suggest secondary arm(s) pivotal "to a butterfly exercise start position and to a straight press exercise start position." Further still, the arms are physically restrained from movement outward into a butterfly exercise start position by bracket 37 and its attached bumpers 38. "In the rest position, the bracket 37 operates to limit the lateral range of motion of the handles 61 and to define a lateral starting position." See Col. 8, lines 64-66.

Therefore, Simonson and Ish, and the other cited and applied references, fail to teach or suggest the present invention as set forth in new Claims 22-31 for at least the reasons stated above. Therefore, applicants submit that new Claims 22-31 are allowable over the prior art.

CONCLUSION

In view of the foregoing amendments and remarks above, applicants respectfully submit that the present application is in condition for allowance. Consequently, early and favorable action allowing these claims and passing this application to issue is respectfully solicited. If any questions remain that may be expeditiously resolved by telephone, the Examiner is invited to contact the applicants' undersigned attorney at the number below.

Respectfully submitted,

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In the Claims:

2. (Three Times Amended) An exercise apparatus comprising:

a frame;

a press arm pivotally coupled to the frame, said press arm having a main arm member depending from a main pivot on the frame and a pair of secondary arms coupled to the main arm member at respective secondary pivots, wherein the main pivot and each of the secondary pivots has a respective pivot axis and wherein the pivot axis of the secondary pivots are substantially orthogonal to the pivot axis of the main pivot, and wherein each of the secondary arms pivot both inwardly and outwardly from an at rest position about a respective one of the secondary pivots along an arcuate path that is fixed relative to the main arm member;

a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot;

a source of exercise resistance; and

means for coupling said source of exercise resistance to said press arm.

8. (Amended) The exercise apparatus of Claim 2 wherein [each of] the [main and] secondary pivots [has a respective pivot axis and wherein the pivot axes of the secondary pivots] are substantially parallel to each other [and orthogonal to the pivot axis of the main pivot].

11. (Three Times Amended) A press arm for an exercise machine comprising a main arm member having a main pivot and a pair of laterally spaced apart secondary pivots

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substantially orthogonal with respect to the main pivot, and secondary pivots substantially parallel to one another [and inclined with respect to vertical];

a pair of secondary arms coupled to the main arm member at respective ones of the secondary pivots; [and]

wherein each of the secondary arms pivot both inwardly and outwardly from an at rest position about a respective one of the secondary pivots along an arcuate path that is fixed relative to the main arm member; and

a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot.

15. (Amended) An exercise apparatus comprising:

a frame;

a main arm member [press arm] pivotally coupled to the frame from a main pivot on the frame and a first secondary arm coupled to the main arm member [press arm] at a first secondary pivot, wherein the main pivot and the first secondary pivot each have a pivot axis and wherein the pivot axis of the first secondary pivot is substantially orthogonal to the pivot axis of the main pivot, and wherein the first secondary arm pivots both inwardly and outwardly from an at rest position about the first secondary pivot along an arcuate path that is fixed relative to the main arm member [press arm];

a longitudinally axis oriented perpendicular to the first secondary pivot axis and perpendicular to the main pivot axis, wherein the first secondary arm has a distal end, wherein

movement of the distal end perpendicular to the longitudinal axis causes the main arm member to pivot about the main pivot;

a source of exercise resistance; and

means for coupling said source of exercise resistance to said main arm member [press arm].

16. (Amended) The exercise apparatus of Claim 15, further comprising a second secondary arm coupled to the main arm member [press arm] at a second secondary pivot.

18. (Amended) An exercise apparatus comprising:

a frame;

a main arm member [press arm] pivotally coupled to the frame from a main pivot on the frame and a pair of secondary arms coupled to the main arm member [press arm] at respective secondary pivots, wherein the main pivot and each of the secondary pivots has a respective pivot axis and wherein the pivot axis of the secondary pivots are substantially orthogonal to the pivot axis of the main pivot, and wherein each of the secondary arms pivot both inwardly and outwardly from an at rest position about a respective one of the secondary pivots along an arcuate path that is fixed relative to the main arm member [press arm];

a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot;

a source of exercise resistance; and

means for coupling said source of exercise resistance to said main arm member [press arm].

20. (Amended) An exercise apparatus comprising:

a frame;

a main arm member [press arm] pivotally coupled to the frame at a main pivot on the frame and a pair of secondary arms coupled to the main arm member [press arm] at respective secondary pivots, wherein the main pivot and each of the secondary pivots has a respective pivot axis, wherein the pivot axis of the secondary pivots are substantially orthogonal to the pivot axis of the main pivot, and wherein each of the secondary arms are suspended when at rest;

a longitudinally axis oriented perpendicular to the secondary pivot axes and perpendicular to the main pivot axis, wherein each secondary arm has a distal end, wherein movement of the distal ends inward toward one another while maintaining a longitudinal position of each distal end relative to the longitudinal axis causes the main arm member to pivot about the main pivot;

a source of exercise resistance; and

means for coupling said source of exercise resistance to said main arm member [press arm].

Claims 22-31 have been added.